

A New Theory of Cosmology: The Universe as a Photon-Exciton Collision Within a Crystal Structure Residing in a Higher Physical Plane

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Simon Edwards

Research Acceleration Initiative

Introduction

Much ado has been made about a theory sometimes called the Simulation Hypothesis that suggests that the Universe with which we are familiar is part of a computer simulation established by a sentient alien species existing on a higher plane of existence and that sentient life forms in our Universe are an accidental byproduct of the creation of that simulation.

Many aspects of that hypothesis are troubling to me for a number of reasons, the primary one being that this amounts to yet another creation myth with no basis in what can be observed. It features a superior being creating everything we see and suggests that there is some purpose behind our existence. I find this to be nothing more than a creation myth updated for the modern era.

Abstract

Beyond this, there are apparent scientific reasons to doubt the Simulation Hypothesis in addition to its association with creation myths. Chief among these is the basic fact that all matter and energy in our Universe is based upon spheres interacting in multiple dimensions. Every nucleonic and sub-nucleonic particle discovered to date has been spherical. Much to the chagrin of Johannes Kepler, while other geometric structures may be present in the world of the very large with triangles, squares, and hexagons being useful for architecture and tool-making, in contrast, the only shape a quantum object can have is that of a sphere.

The way in which spheres interact with one another is impossible to predict except in the most controlled conditions. Although the same laws of physics dictate the behavior of all things, in a Universe made of perhaps 10^{38} atoms that are interacting in perhaps 11 dimensions, many of them connected to one another invisibly through a higher dimensional plane (but importantly, where only select atoms are entangled) there is no way that anyone within or without the Universe could extract meaningful information from the system or predict its overall internal workings. If there were only three dimensions and no entanglement phenomenon, there is a chance that we might be able to anticipate the behavior of systems as in LaPlace's Demon. If mutual entanglement was present between all matter in the Universe, it would be essentially a gigantic Bose-Einstein Condensate and all entropy would grind to a halt. The overall system might then be discernible to someone outside of the Universe, but its internal distinctness would be eradicated. All of these facts conspire to rule out any possibility that our Universe is a computing tool.

It has been observed by others that the Universe has fractal qualities. Obvious examples include the Fibonacci Spiral being seen in organic and inorganic

systems and the way in which electrons orbit nuclei in much the same way celestial bodies orbit one another. Although different forces come into play at different scales, the concept of an orbit is just one example of a phenomenon that is seen at nearly every scale in the Universe.

Although I cannot entirely discount the possibility that our Universe is a portion of some tool used by a far more intelligent civilization existing on a higher plane of existence, I believe it is far, far more likely that it is a portion of a natural system: Namely that of light-slowing crystals found right here on Earth.

Insofar as there is any possibility that our Universe is a part of an artifice, I have explored that possibility and determined what the nature of that artifice would be. Although I cannot emphasize enough that I do not believe it likely to be part of an artifice, there is one type artificial construct and one only that might benefit from an internal structure consisting of a vast array of quantum particles diffusing in accordance with a set of fixed rules in which all electrical forces are perfectly counter-balanced with spherical objects forming spiral patterns of motion which maintain their symmetry through multiple force carriers (in reality, all of them fundamentally electrical) and mutating in multiple dimensions. The artificial mechanism that would benefit from such structuring is not a simulation, but a clock. It would seem likely that if the Universe were part of an artificial chronograph, the predictable expansion and contraction of the Universe could be used as a timing device. The persistence of the human soul and the way in which information is not entirely destroyed until the ultimate end of the Universe at which point it is destroyed entirely are suggestive of a time-keeping application. Such a device would hold as a single unit of time the span from a big bang to a big crunch. However, for reasons I will explain, such a clock would not be entirely accurate due to variability in the net positive and negative charge respectively of the photons and excitons that give rise to Universes.

Accepting as granted the validity of big bang/big crunch theory (which I generally do) and incorporating my own theory of reversed temporal flow of a portion of electro-magnetism (that which self-interacts) being responsible for propelling solid matter with a positive mass forward in time, much like a toy boat rising in a slowly filling bathtub. If this is true, then the steps everything in our Universe takes to run through its life cycle are as follows: All matter is eventually converted into energy. All energy consists of an electrical and magnetic component in which the two frequently coincide but rarely directly collide (as magnetons and neutrinos.) Eventually, however, all energy self-interacts. The self-interaction of quantized energy results in the inversion of mass. Sometimes, mass can be flipped back to its original orientation if something perchance makes that happen. However, once inversion has occurred, most mass-inverse energy continues on its path toward the earliest possible point in time where it halts and simply stands idle like water in a bowl and waits for the next contraction. The overall process is akin to oil and water separating.

The switch to the contraction phase is akin to simply taking the container with the oil and water and flipping it upside down, allowing the two parts to heavily interact for a time while the oil once again fights its way to the surface. There

can be many cycles in which this expansion and contraction can alter the functional size of the Universe without it being taken to the extreme of compressing everything to a singularity as most literature of today suggests. Most of the expansions and contractions do not result in pushing all matter and energy out of the known Universe. However, as the Universe winds down toward its ultimate collapse, a certain percentage of the contents of a Universe are forced out by the contraction with each cycle so that the Universe would go from having hundreds of billions of galaxies to only millions, then down to a handful, and ultimately, with no positive vacancy remaining and the exciton fully dissipated, the last few galaxies do indeed shrink down to an infinitesimal size and ultimately wink out entirely, the matter and energy making up those stars and planets now pushed fully into the higher plane completing the reconstituted photon and enabling it to continue on its original path prior to being forced to give rise to a Universe as a diversion.

In such a system, from the perspective of the higher plane, the presence of specially structured sound and light in a crystal pursuant to the opening of a series of voids (generated during the "upswing" of a Coulomb Force exertion) vacancies called excitons with an overall positive electrical charge occasionally form in or near the path of a photon. When the excitons are off-path but within a certain distance, a photon can be pulled at an angle into the vacancy meaning that its path is changed and its overall route made more circuitous. Although this accounts for some of the slowing of light in crystals such as rubies, much of the delay lies in a hesitation caused by the time it takes photons and excitons to play out their complex interaction; akin to light bouncing within a hall of mirrors many times prior to ultimately escaping. The span of time it takes an exciton to merge with a photon is not truly instantaneous and can be measured if anyone cared to do so. From the perspective of the inside of that Universe, a big bang is occurring in which positive and negative energy is violently intermixed until the positive and negative charges are brought into balance. From the perspective of a sentient being within this system, that period may seem to take 32 billion years. From outside of that system, that process would seem to take about a half of a femtosecond.

For just a moment, when a photon and exciton combine (something that could happen with extreme frequency in crystals that slow the passage of light) the combined particle eventually goes through a short period in which it has spin but does not have net charge and may be considered a spinon. Since spinons have been verified to exist, if our Universe's evolution has a fractal relationship with what we understand of merging excitons and photons, it then stands to reason that the "big crunch" would not necessarily begin the very instant expansion ceases. In fact, a period of stability in which neither expansion nor contraction occurs should be expected to transpire and the duration of that period may actually depend upon the specific properties of the crystal in which our Universe resides and the overall positivity of the exciton, the overall negative charge of the photon, and the diameter of the exciton. The period of stability our particular Universe might one day enjoy is unknowable since we cannot hope to assess the aforementioned variables on the plane above which we reside.

The critical component that makes the differentiation of matter and energy possible is the interaction between a negatively charged "something" and a positively charged "nothing" in a higher plane. What we know as space comes ultimately from this positively charged "nothing." Without space, all matter and energy would be infinitely hot and would remain part of a soup in which there is little contrast between extremes and in which things are too monolithic for something as complex as sentient life to evolve.

As matter and energy differentiate during the cooling phase, the thing that makes cooling possible is the presence of gravity, which not only gives weight to collocated masses, but tends to nudge the pendulum of nuclear motion in the direction of less motion rather than more, meaning that space gives gravity room to fulfill its second mission of cooling matter within the Universe. After all, one could be at the center of a massive gravitational body and experience little gravity due to being at the center. Without gravity, the tendency would be for matter to retain thermal momentum and would likely heat up perpetually. It is thanks to this cooling that the range of temperatures needed to support life can be realized.

Since we know that our Universe is expanding, we know that there is a minimum of 32 billion years remaining for the life of our Universe if we use the interaction of photons and excitons as a model and we use the formula: $\sim 0.5fs$ (in higher plane) = ~ 32 billion years (in a lower plane.)

In all likelihood, our Universe, like most interactions between light passing through a crystal, occurs without the intervention of any intelligent being. Even if some higher being became aware of the true nature of these stacked planes, they would be as powerless to influence our world as we are to influence the internal workings of a photon passing through an exciton in our own realm. Before we can even become aware of what is going on, a femtosecond has passed and whole Universes would be created and destroyed long before we could act. Furthermore, we do not have any way of exerting a deliberate influence on these interacting bodies of differing charge with sufficient nuance, timeliness, or effectiveness to hope to ever identify, observe, help, or harm the denizens of a Universe on a lower dimensional plane than our own. For anyone seeking an explanation for why some higher being does not intervene in human matters, this, given my new theory, would seem to be the most plausible explanation as to why.

As for the dynamics of these expansion/contraction cycles, time must not be conflated with entropy as prior models of physics have done so consistently and falsely. During expansion, the phase in which we find ourselves, a portion of all negative electrical energy flows backward in time creating temporal buoyancy. The portion that flows backward is, of course, that portion that has self-inverted its own mass through collisions with quantized magnetism. As this energy is thrown backward in the fourth spatial dimension (time,) physical matter is propelled forward, provided that it has positive mass.

Over the course of billions of years, the overall flow direction of electrical charge inverts (only when contraction actually begins) so that negative electrical energy moves forward in time in response to mass inversion and solid matter moves in the opposite temporal direction. From the perspective of

the denizens of that tiny Universe, there would be no meaningful change to the dynamics of their everyday lives. Entropy would continue normally while massive objects would begin to move backward in time and energy interacting with magnetism would move in the opposite direction.

During contraction, with less free space and more electrical charge, from the outside, it simply appears that charge is in the process of flipping toward a negative state. From the inside, the galaxies would seem to be moving toward one another. For any discrete Universe to exist, negatively charged contents of a Universe must have a positively charged void in which to exist. Although the Universe has zero net electrical energy, the corollary to this is that the internal relationships between those equally balanced positive and negative forces have an inflection point and that this inflection point likely demarcates the approximate halfway point in the life of any Universe.

Conclusion

By understanding the fractal nature of the Universe and studying its known systems, I posit that enough is now known to state with some confidence that everything we ever have or ever will see play out in the Universe is a byproduct of the interaction of a single photon and a single exciton.